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REMARKS

This application has been reviewed in light of the Office Action mailed October 13, 2006. Reconsideration of this application in view of the below remarks is respectfully requested. Claims 1 – 22 are pending in the application with Claims 7 – 11 having been previously withdrawn from further prosecution. Of the remaining elected claims, Claims 1 and 12 are in independent form. By the present amendment, Claims 1 – 6 and 12 – 22 have been canceled and Claims 23 – 31 have been newly added. No new subject matter is introduced into the disclosure by way of the present amendment.

Claims 1, 4 and 5 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 4,866,526 issued to Ams et al. in view of U.S. Patent No. 5,914,560 issued to Windsor. Claims 2, 3, 6 and 12 – 22 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over Ams et al. in view of Windsor and further in view of U.S. Patent No. 5,187,572 issued to Nakamura et al. In response, Claims 1 – 6 and 12 – 22 have been canceled and Claims 23 – 31 have been added. Thus, the present rejections are rendered moot with respect to Claims 1 – 6 and 12 – 22. However, in so far as the cited references may be applied to Claims 23 – 31, Applicant respectfully submits the following arguments regarding the novelty of these new claims over the prior art references.

Ams discloses a first signal for a lamp control, which increases the light intensity of a rare-gas arc lamp in synchronism with the generation of individual color separations; and a second signal for a diaphragm control, which is generated only when the lamp control is no longer able to regulate the video signals to the desired value. (See: col. 4, lines 1 – 21). Thus, the lamp control signal provides the primary adjustment of the intensity of light that irradiates an illuminated object, while the diaphragm control signal is only used when the lamp control signal

is unable to provide the desired intensity value. In addition, Windsor discloses pulse width modulation as a means of adjusting the intensity of a light source.

Nakamura discloses performing white balance correction of the picture signal itself, by adjusting the level of each component color of the picture signal based on stored white balance data. However, the apparatus in Nakamura seems to adjust white balance by gain control on a processor side.

In contrast, the present invention as recited in Claims 23 – 31 features white balance adjustment by automatic pulse adjustment on the light source side based on data stored in a memory. Specifically, Claim 23 recites a detection step of detecting, in order to adjust white balance of illumination light rays, an image signal for each of first, second and third ranges of wavelengths reflected from a subject, correspondingly to irradiations of first, second and third illumination light rays, respectively; a first step of comparing a ratio of peak values of first and second image signals with a reference value; a second step of adjusting light amounts of the first and second illumination light rays, correspondingly to a result of the first step; a third step of determining whether or not a ratio of peak values of the second and third image signals is within a first setting range, correspondingly to a result of the second step; and a fourth step of readjusting the light amounts of the first and second illumination light rays, correspondingly to a result of the third step. Claim 31 recites similar limitations.

In other words, the present invention, as recited in the newly added claims, adjusts white balance by adjusting the light amounts of the first and second sets of wavelengths, while the third set of wavelengths is maintained at a fixed level. The specification provides support for the claimed invention in FIG. 3 and on page 17, lines 20 to 23. Therefore, no new subject matter is introduced into the disclosure by way of newly added Claims 23 – 31.

None of the cited prior art references disclose adjusting white balance by varying a first set of wavelengths and a second set of wavelengths, while a third set of wavelengths is maintained fixed. Further, the cited references do not compare the second set of wavelengths against the third set of wavelengths to determine whether the ratio between the two sets of wavelengths is within a first setting range; and as a result of the outcome of the comparison, readjusting the light amounts of the first and second illumination light rays.

Therefore, for at least the reasons given above, Claims 23 - 31 are believed to be allowable over the cited prior art references. Accordingly, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. § 103(a) over Ams et al., Windsor and Nakamura et al.

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CONCLUSIONS

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 23 – 31 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Applicant's undersigned attorney at the number indicated below.

Respectfully submitted,



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